

CITY OF WEISER SOURCE WATER ASSESSMENT FINAL REPORT

February 22, 2001



State of Idaho Department of Environmental Quality

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Executive Summary

Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency to assess every source of public drinking water for its relative sensitivity to contaminants regulated by the Act. This assessment is based on a land use inventory of the designated assessment area and sensitivity factors associated with the wells and aquifer characteristics.

This report, *Source Water Assessment for City of Weiser, Idaho*, describes the public drinking water system, the boundaries of the zones of water contribution, and the associated potential contaminant sources located within these boundaries. This assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this source. **The results should not be used as an absolute measure of risk and they should not be used to undermine public confidence in the water system.**

The City of Weiser drinking water system consists of two surface water intakes described by the Department of Environmental Quality in a separate report (Dec. 2000) and ten well sources, of which eight (8) wells are part of the Park St. Manifold and considered to be backup wells. Well #3 is not currently used, but is still tested. Well #1 is still in use, but is in the process of being phased out in favor of surface water. Due to a moderate rating in hydrologic sensitivity and moderate to high ratings for system construction, all the wells have moderate susceptibility to inorganic contamination, volatile organic contamination, synthetic organic contamination, and microbial contamination except in specific instances when the wells have had water quality problems. In November 1993, the Park Street Manifold recorded the presence of trihalomethanes (a volatile organic compound). In March 1994, Well #1 water detected a synthetic organic contaminant "dactahl", an urban fertilizer residue (herbicide) and product used in the production of onions. Well #1 also exceeded the current Maximum Contaminant Level for arsenic in June 2000. The Environmental Protection Agency recently released a final rule for arsenic (Maximum Contaminant Level of 10 parts per billion), meaning all the wells will exceed the Maximum Contaminant Level because of natural arsenic levels. Another inorganic contaminant that could cause problems is nitrate, which has not exceeded the Maximum Contaminant Level of 10 mg/L, but has been tested as high as 7.26 mg/L in Well #1. Current water chemistry tests have recorded no other significant problems with the well water.

This assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what ranking a source receives, protection is always important. Whether the source is currently located in a "pristine" area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

For the City of Weiser, source water protection activities should focus on implementation of practices aimed at reducing the leaching of agricultural chemicals from agricultural land within the designated source water areas. The proposed best management practices of the Weiser River Soil Conservation District (1995) should continue to be implemented. For those wells kept on line for backup purposes, the City of Weiser could consider a reverse osmosis system to reduce the level of arsenic and nitrate delivered to the residents of the community. Much of the designated protection areas are outside the direct jurisdiction of the City of Weiser. Partnerships with state and local agencies and industry groups should be established and are critical to success. All wells should maintain sanitary survey standards regarding wellhead protection. Disinfection practices should be maintained to reduce the risk of microbial contamination. Due to the time involved with the movement of groundwater, source water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term. Source water protection activities for agriculture should be coordinated with the Idaho State Department of Agriculture, the Soil Conservation Commission, the local Soil and Water Conservation District, and the Natural Resources Conservation Service.

A community with a fully developed source water protection program will incorporate many strategies. For assistance in developing protection strategies please contact the Boise Regional Office of the Idaho Department of Environmental Quality or the Idaho Rural Water Association.

SOURCE WATER ASSESSMENT FOR CITY OF WEISER, IDAHO

Section 1. Introduction - Basis for Assessment

The following sections contain information necessary to understand how and why this assessment was conducted. **It is important to review this information to understand what the ranking of this source means.** A map showing the delineated source water assessment area and the inventory of significant potential sources of contamination identified within that area are attached. The list of significant potential contaminant source categories and their rankings used to develop the assessment also is attached.

Background

Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency (EPA) to assess every source of public drinking water for its relative susceptibility to contaminants regulated by the Safe Drinking Water Act. This assessment is based on a land use inventory of the delineated assessment area and sensitivity factors associated with the wells and aquifer characteristics.

Level of Accuracy and Purpose of the Assessment

Since there are over 2,900 public water sources in Idaho, there is limited time and resources to accomplish the assessments. All assessments must be completed by May of 2003. An in-depth, site-specific investigation of each significant potential source of contamination is not possible. **Therefore, this assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this source. The results should not be used as an absolute measure of risk and they should not be used to undermine public confidence in the water system.**

The ultimate goal of the assessment is to provide data to local communities to develop a protection strategy for their drinking water supply system. The Idaho Department of Environmental Quality (DEQ) recognizes that pollution prevention activities generally require less time and money to implement than treatment of a public water supply system once it has been contaminated. DEQ encourages communities to balance resource protection with economic growth and development. The decision as to the amount and types of information necessary to develop a source water protection program should be determined by the local community based on its own needs and limitations. Wellhead or source water protection is one facet of a comprehensive growth plan, and it can complement ongoing local planning efforts.

Section 2. Conducting the Assessment

General Description of the Source Water Quality

The City of Weiser wells are community wells that serve approximately 5,300 people with approximately 2,000 connections. The wells are located in Washington County, at various locations in and to the north of the City of Weiser (Figure 1). The public drinking water system for the City of Weiser is comprised of ten wells and two surface water intakes.

Significant water chemistry problems have been recorded in the finished well water including the volatile organic contaminant (VOC) trihalomethanes (Park St. Manifold), the synthetic organic contaminant (SOC) dactahl (Well #1), and the inorganic contaminants (IOCs) arsenic (Well #1 exceeded the Maximum Contaminant Level (MCL)) and nitrate. A significant water chemistry problem is that of arsenic, which occurs naturally and which will consistently exceed the MCL now that the EPA has lowered the arsenic MCL to 10 parts per billion (ppb).

Defining the Zones of Contribution – Delineation

The delineation process establishes the physical area around a well that will become the focal point of the assessment. The process includes mapping the boundaries of the zone of contribution into time-of-travel (TOT) zones (zones indicating the number of years necessary for a particle of water to reach a well) for water in the aquifer. DEQ used a refined computer model approved by the EPA in determining the 3-year (Zone 1B), 6-year (Zone 2), and 10-year (Zone 3) TOT for water associated with the Scott Creek – Mann Creek aquifer in the vicinity of the City of Weiser. The computer model used site specific data, assimilated by DEQ from a variety of sources including the City of Weiser well logs for Wells #1, #2, and a representative Park St. Manifold well, other local area well logs, and hydrogeologic reports (Clark, 1985; DEQ, 1991; DEQ, 1995; USGS, 1996). The delineated source water assessment areas for the City of Weiser wells can best be described as corridors approximately $\frac{3}{4}$ mile wide and $2\frac{1}{2}$ miles long extending north (Wells #1 and #3) and northeast (Park St. Manifold) to the north of the City of Weiser (Figures 2, 3, 4). The actual data used by DEQ in determining the source water assessment delineation areas are available upon request.

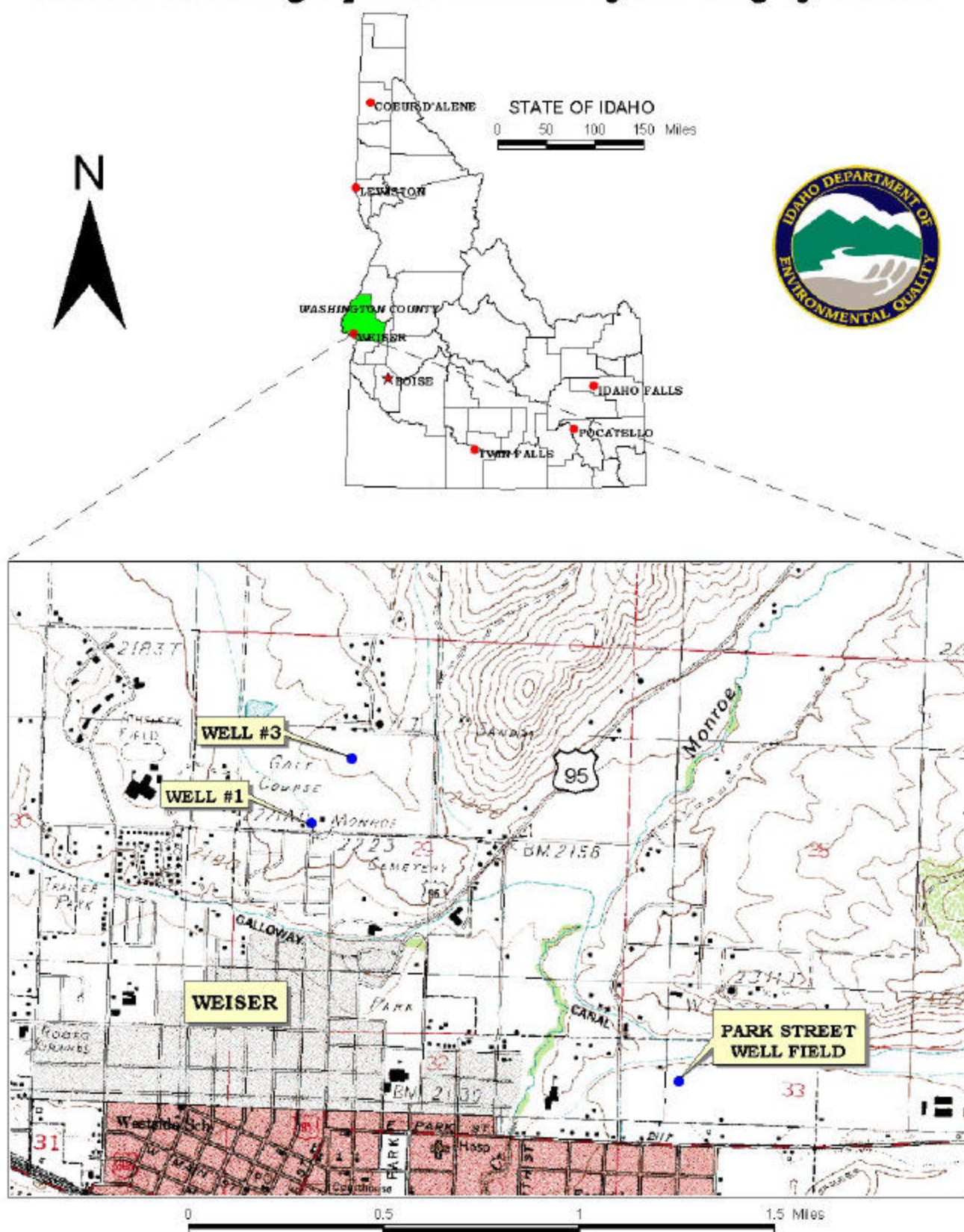
Wells #1 and #3, in the City of Weiser system, take their water in part from the deeper, confined to semi-confined lacustrine (lakebed deposited) aquifer. The Park Street Manifold wells take their water from the shallow, unconfined alluvial (river deposited material) aquifer. The shallow aquifer has been demonstrated to be a distinct water-bearing unit in terms of water quality, water yield, and the sources of recharge (DEQ, 2000). The shallow aquifer contains much higher levels of nitrate, lower levels of iron, and higher levels of arsenic than the deeper aquifer. Water yields from the shallow aquifer are significantly higher than from the deeper aquifer. Ground water in the shallow aquifer is recharged primarily from surface water irrigation, direct precipitation, and canal leakage while the sources of recharge to the deeper aquifer are indeterminate but are very likely much older.

Identifying Potential Sources of Contamination

A potential source of contamination is defined as any facility or activity that stores, uses, or produces, as a product or by-product, the contaminants regulated under the Safe Drinking Water Act and has a sufficient likelihood of releasing such contaminants at levels that could pose a concern relative to drinking water sources. The goal of the inventory process is to locate and describe those facilities, land uses, and environmental conditions that are potential sources of groundwater contamination. The locations of potential sources of contamination within the delineation areas were obtained by field surveys conducted by DEQ and from available databases.

The dominant land use outside the City of Weiser area is irrigated agriculture. Land use within the immediate area of the wellheads consists of residential subdivisions, urban uses, a golf course, and agricultural uses. Historic uses up-gradient of the Park Street Manifold included a feedlot and slaughter house.

FIGURE 1. Geographic Location of the City of Weiser



It is important to understand that a release may never occur from a potential source of contamination provided they are using best management practices. Many potential sources of contamination are regulated at the federal level, state level, or both to reduce the risk of release. Therefore, when a business, facility, or property is identified as a potential contaminant source, this should not be interpreted to mean that this business, facility, or property is in violation of any local, state, or federal environmental law or regulation. What it does mean is that the potential for contamination exists due to the nature of the business, industry, or operation. There are a number of methods that water systems can use to work cooperatively with potential sources of contamination. These involve educational visits and inspections of stored materials. Many owners of such facilities may not even be aware that they are located near a public water supply well.

Contaminant Source Inventory Process

A two-phased contaminant inventory of the study area was conducted from December 2000 to January 2001. The first phase involved identifying and documenting potential contaminant sources within the City of Weiser Source Water Assessment Area through the use of computer databases and Geographic Information System (GIS) maps developed by DEQ. The second, or enhanced, phase of the contaminant inventory involved contacting the operator to validate the sources identified in phase one and to add any additional potential sources in the area. This task was undertaken with the assistance of Joe Qualls.

Since the delineated source water areas encompass various portions of the Weiser area, the different wells have different numbers and types of potential contaminant sources. Wells #1 and #3 have 4 potential contaminant sites (Table 1). The Park St. Manifold wells have 3 potential contaminant sites (Table 2) and two canals that directly influence the well water. The sources include a golf course, various subdivisions, historic and current feedlots, a Comprehensive Environmental Response Compensation and Liability Act (CERCLA) site, and a mine. Additionally there are a number of local roads that cross the delineations, but none of the roads are major thoroughfares. Figures 2, 3, and 4 show the locations of these various potential contaminant sites relative to the wellheads.

Table 1. City of Weiser Wells #1 and #3, Potential Contaminant Inventory

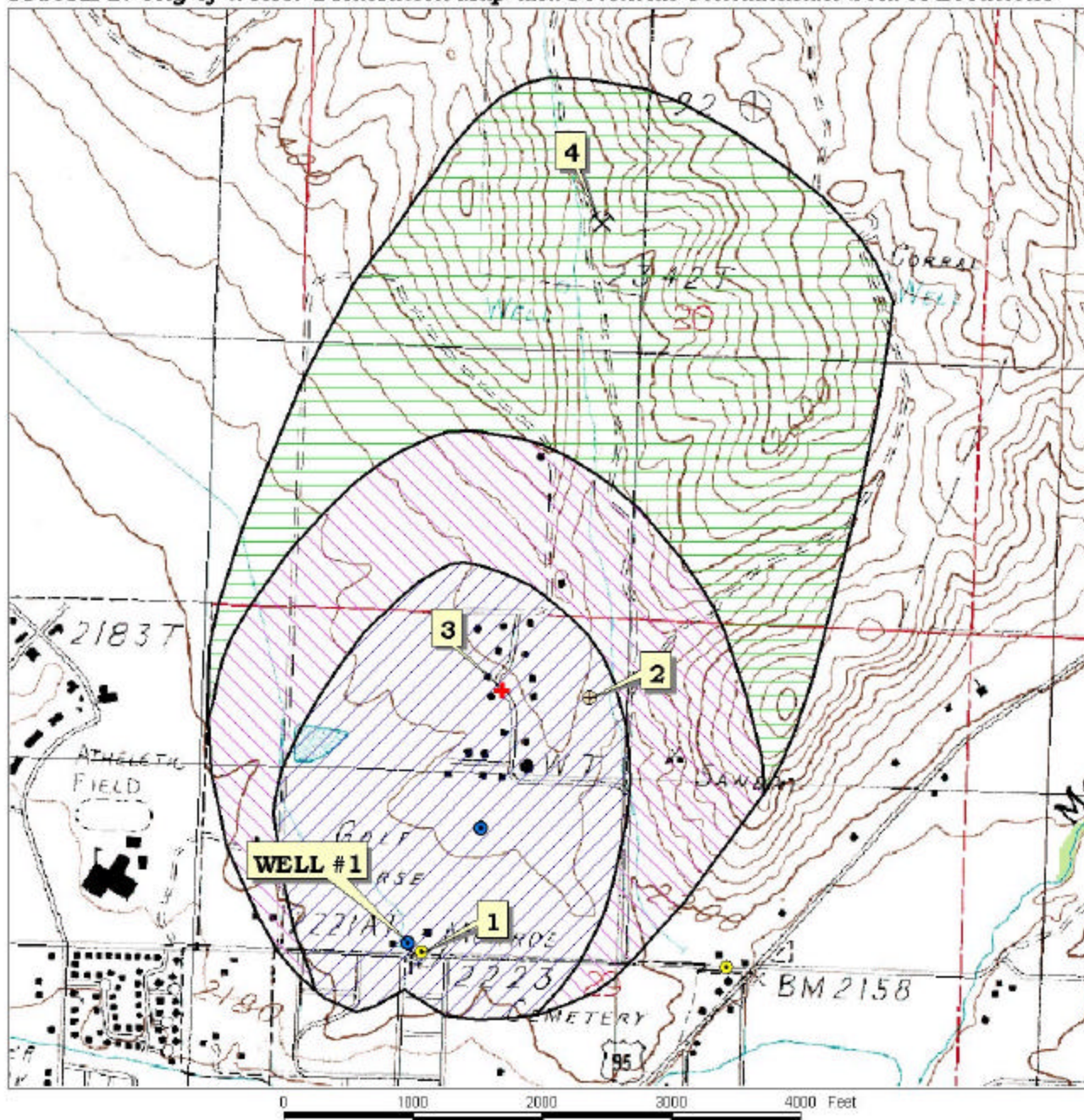
SITE #	Source Description	TOT Zone ² (years)	Source of Information	Potential Contaminants ³
1	Golf Course	0-3	Database Search	IOC, SOC
2	CERCLA ¹ – old landfill	0-3	Database Search	IOC, VOC, SOC
3	Subdivision	0-3	Enhanced Inventory	IOC, VOC, SOC, Microbial
4	Geothermal location	6-10	Database Search	IOC

¹ CERCLA = Comprehensive Environmental Response Compensation and Liability Act

² TOT = time-of-travel (in years) for a potential contaminant to reach the wellhead

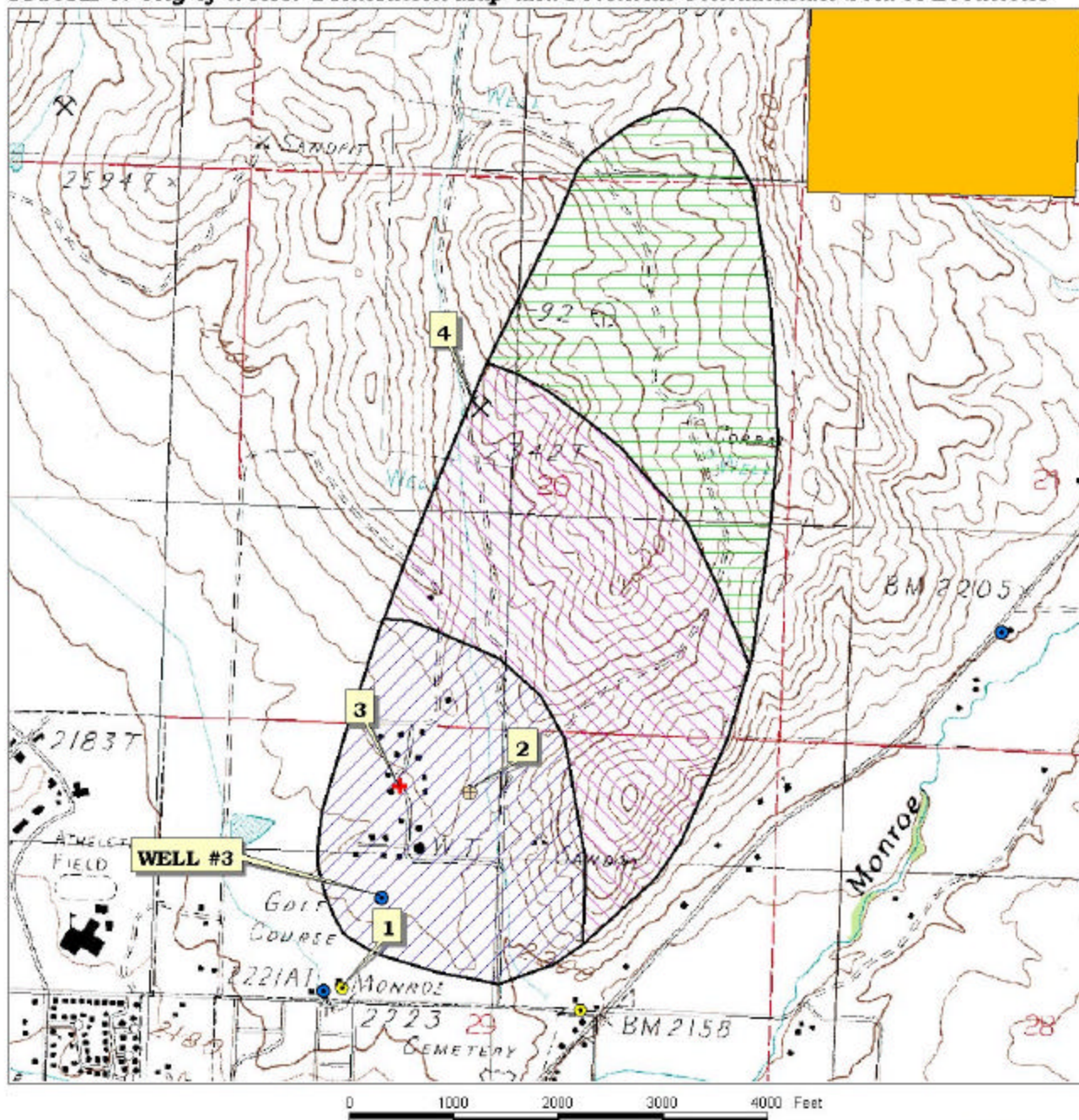
³ IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

FIGURE 2. City of Weiser Delineation Map and Potential Contaminant Source Locations



PWS# 3440011
WELL #1

FIGURE 3. City of Weiser Delineation Map and Potential Contaminant Source Locations



PWS# 3440011
WELL #3

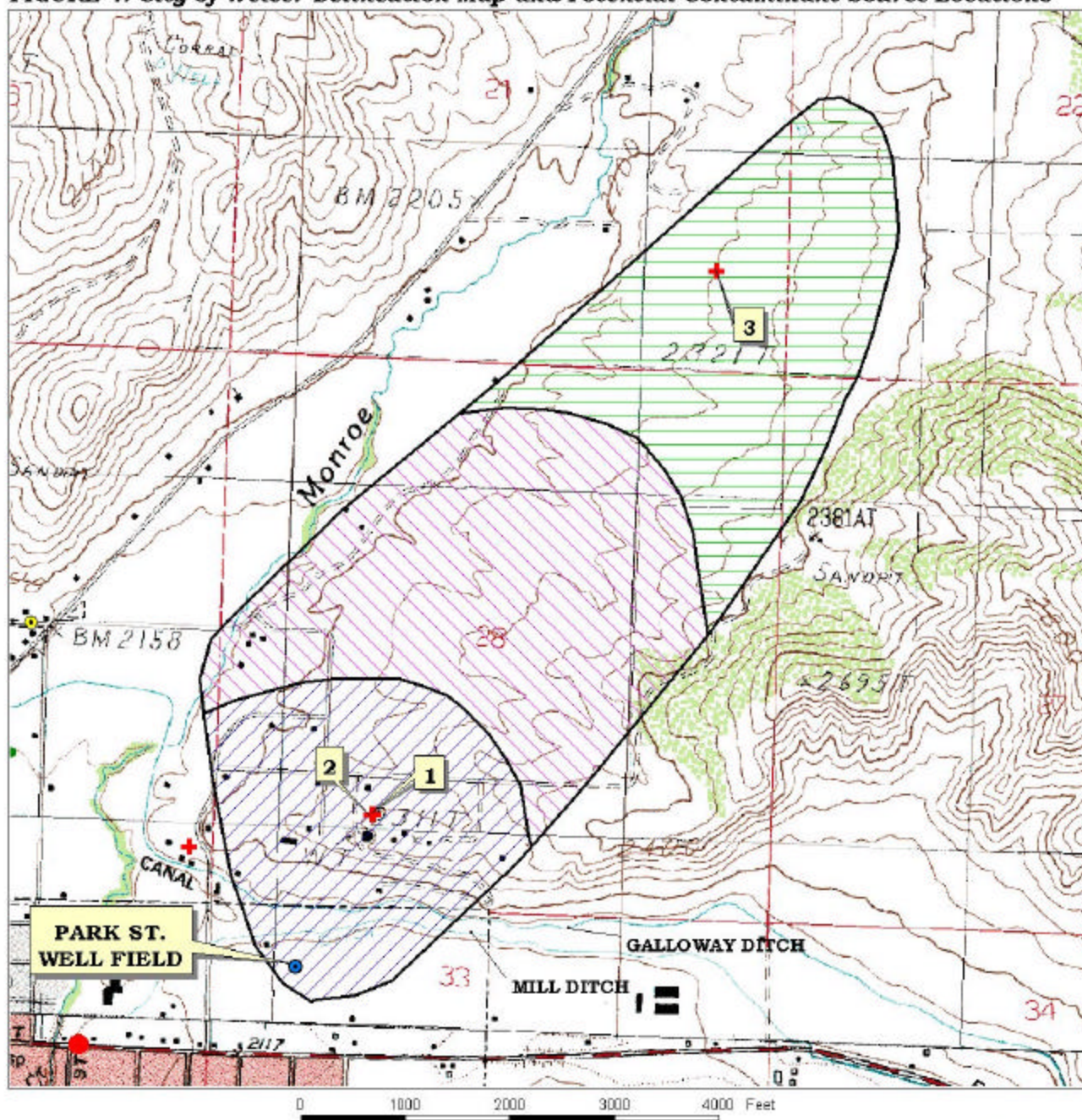
Table 2. City of Weiser Park St. Manifold, Potential Contaminant Inventory

SITE #	Source Description	TOT Zone ¹ (years)	Source of Information	Potential Contaminants ²
1	Subdivision	0-3	Enhanced Inventory	IOC, VOC, SOC, Microbial
2	Feedlot - historic	0-3	Enhanced Inventory	IOC, SOC, Microbial
	Mill Ditch	0-3	Database Search	IOC, SOC, Microbial
	Galloway Ditch	0-3	Database Search	IOC, SOC, Microbial
3	Feedlot – winter use	6-10	Database Search	IOC, SOC, Microbial

¹ TOT = time-of-travel (in years) for a potential contaminant to reach the wellhead

² IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

FIGURE 4. City of Weiser Delineation Map and Potential Contaminant Source Locations



PWS# 3440011
PARK ST. WELL FIELD

Section 3. Susceptibility Analyses

The water system's susceptibility to contamination was ranked as high, moderate, or low risk according to the following considerations: hydrologic characteristics, physical integrity of the well, land use characteristic, and potentially significant contaminant sources. The susceptibility rankings are specific to a particular potential contaminant or category of contaminants. Therefore, a high susceptibility rating relative to one potential contaminant does not mean that the water system is at the same risk for all other potential contaminants. The relative ranking that is derived for each well is a qualitative, screening-level step that, in many cases, uses generalized assumptions and best professional judgement. The following summaries describe the rationale for the susceptibility ranking.

Hydrologic Sensitivity

Hydrologic sensitivity was moderate for all the wells (Table 3). This reflects the nature of the soils being in the poorly-drained to moderately-drained class, the vadose zone (zone from land surface to the water table) being made predominantly of sands and gravels, and the first groundwater being located within 20 feet of the ground surface. Additionally, Wells #1 and the Park Street Manifold wells do not have a laterally extensive low permeability unit that could retard the downward movement of contaminants. Well #3 has at least a 50 feet cumulative thickness of low permeability units which could retard the downward movement of contaminants.

Well Construction

Well construction directly affects the ability of the well to protect the aquifer from contaminants. The City of Weiser drinking water system consists of two surface water intakes and ten wells that extract groundwater for domestic, industrial, recreational, and commercial uses. The well system construction scores were moderate for all the wells.

All ten wells have new sanitary surveys that were completed in September 2000, which determined if the wells were in compliance drinking water standards. Wells #1 and #3 have well houses, cement floors, and casing raised at least 18 inches above grade. The Park Street Manifold pump house and controls are housed in a well house with a cement floor. The individual wells have casing at least 18 inches above grade and are protected from flooding. Wells #1 and #3 have a chlorine gas water treatment system. The Park Street Manifold wells have liquid sodium hypochlorite disinfection systems installed. Well logs were available for Wells #1, #3, and a representative Park Street Manifold well, so a determination could be made as to whether the casing and annular seals extended into low permeability units and whether current public water system (PWS) construction standards were being met.

The Well #1 log has incomplete geologic data, but provides information about screened intervals. The well has 0.250-inch thick, 8-inch diameter casing from ground surface to 247 feet below ground surface (bgs). The water table was identified at 79 feet bgs. Well screens were installed in five-foot intervals between 104 feet bgs and 145 feet bgs.

The Well #3 log does not show whether the annular seal extends into a low permeability unit. The well has 0.250-inch thick, 16-inch diameter steel casing from ground surface to the depth of the well at 204 feet bgs. The water table was identified at 120 feet bgs. A well screen was installed from 123 feet bgs to 198 feet bgs.

Green clay was identified from 115 feet bgs to 118 feet bgs. Blue clay was identified from 202 feet bgs to 204 feet bgs. Though the well may have been in compliance with standards when it was drilled in 1963, current PWS well construction standards are more stringent.

Though Wells #1 and #3 are drilled into the deeper aquifer, the Park Street Manifold wells are drilled in the shallow, unconfined aquifer to a depth between 25 feet and 40 feet bgs. The representative log shows that the casing is installed into the low permeability blue clay layer found at 22 feet bgs, but the annular seal only extends to a depth of eight (8) feet and does not extend into a low permeability unit. The well uses 0.250-inch thick, 8-inch diameter casing. The well was drilled to 40 feet bgs. The water table was identified at 3 feet bgs. Well screens were installed from 17 feet bgs to 22 feet bgs. The well was gravel packed from 8 feet bgs to 40 feet bgs. Though the well may have been in compliance with standards when it was drilled in 1991, current PWS well construction standards are more stringent.

The Idaho Department of Water Resources Well Construction Standards Rules (1993) require all PWSs to follow DEQ standards as well. IDAPA 58.01.08.550 requires that PWSs follow the Recommended Standards for Water Works (1997) during construction. Table 1 of the Recommended Standards for Water Works (1997) lists the required steel casing thicknesses for various diameter wells. Eight-inch diameter wells require a casing thickness of at least 0.322-inches, and presently none of the City of Weiser wells meet this requirement.

Potential Contaminant Source and Land Use

Well #1 rated high for IOCs (i.e. nitrates, arsenic), whereas Well #3 and the Park Street Manifold wells rated moderate for IOCs because of reduced amounts of agricultural land. Wells #1 and #3 rated moderate for SOCs (i.e. pesticides) and VOCs (i.e. petroleum products) and low for microbial contaminants. The Park Street Manifold wells rated moderate for SOCs and low for VOCs and microbial contaminants. Commercial and industrial land uses in the delineated source areas accounted for the largest contribution of VOC and SOC points to the potential contaminant inventory rating. Agricultural and residential land uses accounted for the most points in the IOC potential contaminant inventory rating. Microbial contaminants may be contributed from the residential septic tank systems, agricultural feedlots, and Mill and Galloway Ditches.

The water chemistry problems that have been recorded in the area include the VOC trihalomethanes (Park St. Manifold), the SOC dactahl (Well #1), and the IOCs arsenic (Well #1 exceeded the MCL) and nitrate. One of the most significant water chemistry problem is that of arsenic, which occurs naturally and which will consistently exceed the MCL now that the EPA has lowered the MCL to 10 ppb. No other significant water chemistry problems affect the well water.

Final Susceptibility Ranking

A detection above a drinking water standard MCL, any detection of a VOC or SOC, or a detection of total coliform bacteria or fecal coliform bacteria at the wellhead will automatically give a high susceptibility rating to a well despite the land use of the area because a pathway for contamination already exists. Hydrologic sensitivity and system construction scores are heavily weighted in the final scores. Having multiple potential contaminant sources in the 0 to 3-year time of travel zone (Zone 1B) and agricultural land contribute greatly to the overall ranking. In terms of total susceptibility, all ten wells rate moderate for microbial contamination. Well #1 rates high for IOCs and SOCs and moderate for VOCs. Well #3 rates moderate in all categories. The Park Street Manifold wells rate high for VOCs and moderate for all other categories.

Table 3. Summary of City of Weiser Susceptibility Evaluation

Well	Susceptibility Scores ¹									
	Hydrologic Sensitivity	Contaminant Inventory				System Construction	Final Susceptibility Ranking			
		IOC	VOC	SOC	Microbials		IOC	VOC	SOC	Microbials
Well #1	M	H	M	M	L	M	H* ²	M	H*	M
Well #3	M	M	M	M	L	H	M	M	M	M
Park St. #1	M	M	L	M	L	H	M	H*	M	M
Park St. #2	M	M	L	M	L	H	M	H*	M	M
Park St. #3	M	M	L	M	L	H	M	H*	M	M
Park St. #4	M	M	L	M	L	H	M	H*	M	M
Park St. #5	M	M	L	M	L	H	M	H*	M	M
Park St. #6	M	M	L	M	L	H	M	H*	M	M
Park St. #7	M	M	L	M	L	H	M	H*	M	M
Park St. #8	M	M	L	M	L	H	M	H*	M	M

¹H = High Susceptibility, M = Moderate Susceptibility, L = Low Susceptibility,

IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

²H* = Well rated automatically high due to an IOC Maximum Contaminant Level exceedance or the detection of a VOC or SOC in the tested drinking water.

Susceptibility Summary

Significant water chemistry problems have been recorded including trihalomethanes, dactahl, arsenic, and nitrate. One of the most significant water chemistry problems is that of arsenic, which occurs naturally and which will consistently exceed the MCL now that the EPA has lowered the MCL to 10 ppb. No other significant water chemistry problems affect the well water.

Section 4. Options for Source Water Protection

The susceptibility assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what the susceptibility ranking a source receives, protection is always important. Whether the source is currently located in a “pristine” area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

An effective source water protection program is tailored to the particular local source water protection area. A community with a fully developed source water protection program will incorporate many strategies. For the City of Weiser, source water protection activities should focus on implementation of practices aimed at reducing the leaching of agricultural chemicals from agricultural land within the designated source water areas. The City of Weiser should also be diligent about local businesses that are regulated by the various environmental regulations (RCRA, CERCLA, SARA) or those with potential inorganic contaminants. For those wells kept on line for backup purposes, the City of Weiser may want to consider a reverse osmosis system to reduce the level of arsenic and nitrate delivered to the residents of the community. Most of the delineated areas are outside the direct jurisdiction of the City of Weiser. Partnerships with state and local agencies and industry groups should be established and are critical to success. Disinfection practices should be maintained to reduce the risk of microbial contamination. Continued vigilance in keeping the well protected from surface flooding can also keep the potential for contamination reduced. Due to the time involved with the movement of groundwater, wellhead protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term. Source water protection activities for agriculture should be coordinated with the Idaho Department of Agriculture, the Soil Conservation Commission, the local Soil and Water Conservation District, and the Natural Resources Conservation Service.

Assistance

Public water supplies and others may call the following DEQ offices with questions about this assessment and to request assistance with developing and implementing a local protection plan. In addition, draft protection plans may be submitted to the DEQ office for preliminary review and comments.

Boise Regional DEQ Office (208) 373-0550

State DEQ Office (208) 373-0502

Website: <http://www2.state.id.us/deq>

Water suppliers serving fewer than 10,000 persons may contact John Bokor, Idaho Rural Water Association, at (208) 743-6142 for assistance with wellhead protection strategies.

POTENTIAL CONTAMINANT INVENTORY

LIST OF ACRONYMS AND DEFINITIONS

AST (Aboveground Storage Tanks) – Sites with aboveground storage tanks.

Business Mailing List – This list contains potential contaminant sites identified through a yellow pages database search of standard industry codes (SIC).

CERCLIS – This includes sites considered for listing under the **Comprehensive Environmental Response Compensation and Liability Act (CERCLA)**. CERCLA, more commonly known as ASuperfund, is designed to clean up hazardous waste sites that are on the national priority list (NPL).

Cyanide Site – DEQ permitted and known historical sites/facilities using cyanide.

Dairy – Sites included in the primary contaminant source inventory represent those facilities regulated by Idaho State Department of Agriculture (ISDA) and may range from a few head to several thousand head of milking cows.

Deep Injection Well – Injection wells regulated under the Idaho Department of Water Resources generally for the disposal of stormwater runoff or agricultural field drainage.

Enhanced Inventory – Enhanced inventory locations are potential contaminant source sites added by the water system. These can include new sites not captured during the primary contaminant inventory, or corrected locations for sites not properly located during the primary contaminant inventory. Enhanced inventory sites can also include miscellaneous sites added by the Idaho Department of Environmental Quality (DEQ) during the primary contaminant inventory.

Floodplain – This is a coverage of the 100year floodplains.

Group 1 Sites – These are sites that show elevated levels of contaminants and are not within the priority one areas.

Inorganic Priority Area – Priority one areas where greater than 25% of the wells/springs show constituents higher than primary standards or other health standards.

Landfill – Areas of open and closed municipal and non-municipal landfills.

LUST (Leaking Underground Storage Tank) – Potential contaminant source sites associated with leaking underground storage tanks as regulated under RCRA.

Mines and Quarries – Mines and quarries permitted through the Idaho Department of Lands.)

Nitrate Priority Area – Area where greater than 25% of wells/springs show nitrate values above 5mg/l.

NPDES (National Pollutant Discharge Elimination System) – Sites with NPDES permits. The Clean Water Act requires that any discharge of a pollutant to waters of the United States from a point source must be authorized by an NPDES permit.

Organic Priority Areas – These are any areas where greater than 25 % of wells/springs show levels greater than 1% of the primary standard or other health standards.

Recharge Point – This includes active, proposed, and possible recharge sites on the Snake River Plain.

RICRIS – Site regulated under **Resource Conservation Recovery Act (RCRA)**. RCRA is commonly associated with the cradle to grave management approach for generation, storage, and disposal of hazardous wastes.

SARA Tier II (Superfund Amendments and Reauthorization Act Tier II Facilities) – These sites store certain types and amounts of hazardous materials and must be identified under the Community Right to Know Act.

Toxic Release Inventory (TRI) – The toxic release inventory list was developed as part of the Emergency Planning and Community Right to Know (Community Right to Know) Act passed in 1986. The Community Right to Know Act requires the reporting of any release of a chemical found on the TRI list.

UST (Underground Storage Tank) – Potential contaminant source sites associated with underground storage tanks regulated as regulated under RCRA.

Wastewater Land Applications Sites – These are areas where the land application of municipal or industrial wastewater is permitted by DEQ.

Wellheads – These are drinking water well locations regulated under the Safe Drinking Water Act. They are not treated as potential contaminant sources.

NOTE: Many of the potential contaminant sources were located using a geocoding program where mailing addresses are used to locate a facility. Field verification of potential contaminant sources is an important element of an enhanced inventory.

Where possible, a list of potential contaminant sites unable to be located with geocoding will be provided to water systems to determine if the potential contaminant sources are located within the source water assessment area.

References Cited

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Attachment A

City of Weiser Susceptibility Analysis Worksheet

The final scores for the susceptibility analysis were determined using the following formulas:

- 1) VOC/SOC/IOC Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.2)
- 2) 2) Microbial Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.35)

Final Susceptibility Scoring:

- 0 - 5 Low Susceptibility
- 6 - 12 Moderate Susceptibility
- ≥ 13 High Susceptibility

Ground Water Susceptibility Report

Public Water System Name :

WEISER CITY OF

Well# : WELL #1

Public Water System Number 3440011

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1. System Construction

SCORE

Drill Date	05/03/1989	
Driller Log Available	YES	
Sanitary Survey (if yes, indicate date of last survey)	YES	2000
Well meets IDWR construction standards	NO	1
Wellhead and surface seal maintained	YES	0
Casing and annular seal extend to low permeability unit	NO	2
Highest production 100 feet below static water level	NO	1
Well located outside the 100 year flood plain	YES	0

Total System Construction Score 4

2. Hydrologic Sensitivity

Soils are poorly to moderately drained	YES	0
Vadose zone composed of gravel, fractured rock or unknown	YES	1
Depth to first water > 300 feet	NO	1
Aquitard present with > 50 feet cumulative thickness	NO	2

Total Hydrologic Score 4

3. Potential Contaminant / Land Use - ZONE 1A

IOC Score	VOC Score	SOC Score	Microbial Score
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Land Use Zone 1A	IRRIGATED PASTURE	1	1	1	1
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	YES	YES	NO	YES	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		1	1	1	1

Potential Contaminant / Land Use - ZONE 1B

Contaminant sources present (Number of Sources)	YES	3	2	3	1
(Score = # Sources X 2) 8 Points Maximum		6	4	6	2
Sources of Class II or III leacheable contaminants or	YES	4	1	0	
4 Points Maximum		4	1	0	
Zone 1B contains or intercepts a Group 1 Area	YES	2	0	2	0
Land use Zone 1B Greater Than 50% Irrigated Agricultural Land		4	4	4	4

Total Potential Contaminant Source / Land Use Score - Zone 1B 16 9 12 6

Potential Contaminant / Land Use - ZONE II

Contaminant Sources Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or	YES	1	0	0	
Land Use Zone II Greater Than 50% Irrigated Agricultural Land		2	2	2	

Potential Contaminant Source / Land Use Score - Zone II 3 2 2 0

Potential Contaminant / Land Use - ZONE III

Contaminant Source Present	YES	1	0	0	
Sources of Class II or III leacheable contaminants or	NO	0	0	0	
Is there irrigated agricultural lands that occupy > 50% of	NO	0	0	0	

Total Potential Contaminant Source / Land Use Score - Zone III	1	0	0	0
Cumulative Potential Contaminant / Land Use Score	21	12	15	7
4. Final Susceptibility Source Score	12	10	11	11
5. Final Well Ranking	High*	Moderate	High*	Moderate

1. System Construction

SCORE

Drill Date	06/26/1963	
Driller Log Available	YES	
Sanitary Survey (if yes, indicate date of last survey)	YES	2000
Well meets IDWR construction standards	NO	1
Wellhead and surface seal maintained	YES	0
Casing and annular seal extend to low permeability unit	NO	2
Highest production 100 feet below static water level	NO	1
Well located outside the 100 year flood plain	YES	0

Total System Construction Score 4

2. Hydrologic Sensitivity

Soils are poorly to moderately drained	YES	0
Vadose zone composed of gravel, fractured rock or unknown	YES	1
Depth to first water > 300 feet	NO	1
Aquitard present with > 50 feet cumulative thickness	YES	0

Total Hydrologic Score 2

3. Potential Contaminant / Land Use - ZONE 1A

IOC Score	VOC Score	SOC Score	Microbial Score
--------------	--------------	--------------	--------------------

Land Use Zone 1A	IRRIGATED PASTURE	1	1	1	1
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	NO	NO	NO	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		1	1	1	1

Potential Contaminant / Land Use - ZONE 1B

Contaminant sources present (Number of Sources)	YES	3	2	3	1
(Score = # Sources X 2) 8 Points Maximum		6	4	6	2
Sources of Class II or III leacheable contaminants or	YES	4	1	0	
4 Points Maximum		4	1	0	
Zone 1B contains or intercepts a Group 1 Area	YES	2	0	2	0
Land use Zone 1B Greater Than 50% Irrigated Agricultural Land		4	4	4	4

Total Potential Contaminant Source / Land Use Score - Zone 1B 16 9 12 6

Potential Contaminant / Land Use - ZONE II

Contaminant Sources Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or	NO	0	0	0	
Land Use Zone II Less than 25% Agricultural Land		0	0	0	

Potential Contaminant Source / Land Use Score - Zone II 0 0 0 0

Potential Contaminant / Land Use - ZONE III

Contaminant Source Present	YES	1	0	0	
Sources of Class II or III leacheable contaminants or	NO	0	0	0	
Is there irrigated agricultural lands that occupy > 50% of	NO	0	0	0	

Total Potential Contaminant Source / Land Use Score - Zone III 1 0 0 0

Cumulative Potential Contaminant / Land Use Score	18	10	13	7
4. Final Susceptibility Source Score	10	8	9	9
5. Final Well Ranking	Moderate	Moderate	Moderate	Moderate

1. System Construction

SCORE

Drill Date		
Driller Log Available	NO	
Sanitary Survey (if yes, indicate date of last survey)	YES	2000
Well meets IDWR construction standards	NO	1
Wellhead and surface seal maintained	YES	0
Casing and annular seal extend to low permeability unit	NO	2
Highest production 100 feet below static water level	NO	1
Well located outside the 100 year flood plain	YES	0

Total System Construction Score 4

2. Hydrologic Sensitivity

Soils are poorly to moderately drained	YES	0
Vadose zone composed of gravel, fractured rock or unknown	YES	1
Depth to first water > 300 feet	NO	1
Aquitard present with > 50 feet cumulative thickness	NO	2

Total Hydrologic Score 4

3. Potential Contaminant / Land Use - ZONE 1A

IOC Score	VOC Score	SOC Score	Microbial Score
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Land Use Zone 1A	IRRIGATED PASTURE	1	1	1	1
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	YES	NO	YES	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		1	1	1	1

Potential Contaminant / Land Use - ZONE 1B

Contaminant sources present (Number of Sources)	YES	4	1	4	4
(Score = # Sources X 2) 8 Points Maximum		8	2	8	8
Sources of Class II or III leacheable contaminants or	NO	0	0	0	
4 Points Maximum		0	0	0	
Zone 1B contains or intercepts a Group 1 Area	YES	2	0	2	0
Land use Zone 1B	Less Than 25% Agricultural Land	0	0	0	0

Total Potential Contaminant Source / Land Use Score - Zone 1B 10 2 10 8

Potential Contaminant / Land Use - ZONE II

Contaminant Sources Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or	YES	1	0	0	
Land Use Zone II	Greater Than 50% Irrigated Agricultural Land	2	2	2	

Potential Contaminant Source / Land Use Score - Zone II 3 2 2 0

Potential Contaminant / Land Use - ZONE III

Contaminant Source Present	YES	1	0	1	
Sources of Class II or III leacheable contaminants or	NO	0	0	0	
Is there irrigated agricultural lands that occupy > 50% of	NO	0	0	0	

Total Potential Contaminant Source / Land Use Score - Zone III 1 0 1 0

Cumulative Potential Contaminant / Land Use Score	15	5	14	9
4. Final Susceptibility Source Score	11	9	11	11
5. Final Well Ranking	Moderate	High*	Moderate	Moderate

1. System Construction

SCORE

Drill Date	06/21/1991	
Driller Log Available	NO	
Sanitary Survey (if yes, indicate date of last survey)	YES	2000
Well meets IDWR construction standards	NO	1
Wellhead and surface seal maintained	YES	0
Casing and annular seal extend to low permeability unit	NO	2
Highest production 100 feet below static water level	NO	1
Well located outside the 100 year flood plain	YES	0

Total System Construction Score 4

2. Hydrologic Sensitivity

Soils are poorly to moderately drained	YES	0
Vadose zone composed of gravel, fractured rock or unknown	YES	1
Depth to first water > 300 feet	NO	1
Aquitard present with > 50 feet cumulative thickness	NO	2

Total Hydrologic Score 4

3. Potential Contaminant / Land Use - ZONE 1A

IOC Score	VOC Score	SOC Score	Microbial Score
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Land Use Zone 1A	IRRIGATED PASTURE	1	1	1	1
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	YES	NO	YES	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		1	1	1	1

Potential Contaminant / Land Use - ZONE 1B

Contaminant sources present (Number of Sources)	YES	4	1	4	4
(Score = # Sources X 2) 8 Points Maximum		8	2	8	8
Sources of Class II or III leacheable contaminants or	NO	0	0	0	
4 Points Maximum		0	0	0	
Zone 1B contains or intercepts a Group 1 Area	YES	2	0	2	0
Land use Zone 1B	Less Than 25% Agricultural Land	0	0	0	0

Total Potential Contaminant Source / Land Use Score - Zone 1B 10 2 10 8

Potential Contaminant / Land Use - ZONE II

Contaminant Sources Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or	YES	1	0	0	
Land Use Zone II	Greater Than 50% Irrigated Agricultural Land	2	2	2	

Potential Contaminant Source / Land Use Score - Zone II 3 2 2 0

Potential Contaminant / Land Use - ZONE III

Contaminant Source Present	YES	1	0	1	
Sources of Class II or III leacheable contaminants or	NO	0	0	0	
Is there irrigated agricultural lands that occupy > 50% of	NO	0	0	0	

Total Potential Contaminant Source / Land Use Score - Zone III 1 0 1 0

Cumulative Potential Contaminant / Land Use Score	15	5	14	9
4. Final Susceptibility Source Score	11	9	11	11
5. Final Well Ranking	Moderate	High*	Moderate	Moderate

1. System Construction

SCORE

Drill Date		
Driller Log Available	NO	
Sanitary Survey (if yes, indicate date of last survey)	YES	2000
Well meets IDWR construction standards	NO	1
Wellhead and surface seal maintained	YES	0
Casing and annular seal extend to low permeability unit	NO	2
Highest production 100 feet below static water level	NO	1
Well located outside the 100 year flood plain	YES	0

Total System Construction Score 4

2. Hydrologic Sensitivity

Soils are poorly to moderately drained	YES	0
Vadose zone composed of gravel, fractured rock or unknown	YES	1
Depth to first water > 300 feet	NO	1
Aquitard present with > 50 feet cumulative thickness	NO	2

Total Hydrologic Score 4

3. Potential Contaminant / Land Use - ZONE 1A

IOC Score	VOC Score	SOC Score	Microbial Score
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Land Use Zone 1A	IRRIGATED PASTURE	1	1	1	1
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	YES	NO	YES	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		1	1	1	1

Potential Contaminant / Land Use - ZONE 1B

Contaminant sources present (Number of Sources)	YES	4	1	4	4
(Score = # Sources X 2) 8 Points Maximum		8	2	8	8
Sources of Class II or III leacheable contaminants or	NO	0	0	0	
4 Points Maximum		0	0	0	
Zone 1B contains or intercepts a Group 1 Area	YES	2	0	2	0
Land use Zone 1B	Less Than 25% Agricultural Land	0	0	0	0

Total Potential Contaminant Source / Land Use Score - Zone 1B 10 2 10 8

Potential Contaminant / Land Use - ZONE II

Contaminant Sources Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or	YES	1	0	0	
Land Use Zone II	Greater Than 50% Irrigated Agricultural Land	2	2	2	

Potential Contaminant Source / Land Use Score - Zone II 3 2 2 0

Potential Contaminant / Land Use - ZONE III

Contaminant Source Present	YES	1	0	1	
Sources of Class II or III leacheable contaminants or	NO	0	0	0	
Is there irrigated agricultural lands that occupy > 50% of	NO	0	0	0	

Total Potential Contaminant Source / Land Use Score - Zone III 1 0 1 0

Cumulative Potential Contaminant / Land Use Score	15	5	14	9
4. Final Susceptibility Source Score	11	9	11	11
5. Final Well Ranking	Moderate	High*	Moderate	Moderate

1. System Construction

SCORE

Drill Date	NO	
Driller Log Available	YES	2000
Sanitary Survey (if yes, indicate date of last survey)	NO	1
Well meets IDWR construction standards	YES	0
Wellhead and surface seal maintained	NO	2
Casing and annular seal extend to low permeability unit	NO	1
Highest production 100 feet below static water level	YES	0
Well located outside the 100 year flood plain		

Total System Construction Score 4

2. Hydrologic Sensitivity

Soils are poorly to moderately drained	YES	0
Vadose zone composed of gravel, fractured rock or unknown	YES	1
Depth to first water > 300 feet	NO	1
Aquitard present with > 50 feet cumulative thickness	NO	2

Total Hydrologic Score 4

3. Potential Contaminant / Land Use - ZONE 1A

IOC Score	VOC Score	SOC Score	Microbial Score
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Land Use Zone 1A	IRRIGATED PASTURE	1	1	1	1
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	YES	NO	YES	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		1	1	1	1

Potential Contaminant / Land Use - ZONE 1B

Contaminant sources present (Number of Sources)	YES	4	1	4	4
(Score = # Sources X 2) 8 Points Maximum		8	2	8	8
Sources of Class II or III leacheable contaminants or	NO	0	0	0	
4 Points Maximum		0	0	0	
Zone 1B contains or intercepts a Group 1 Area	YES	2	0	2	0
Land use Zone 1B	Less Than 25% Agricultural Land	0	0	0	0

Total Potential Contaminant Source / Land Use Score - Zone 1B 10 2 10 8

Potential Contaminant / Land Use - ZONE II

Contaminant Sources Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or	NO	0	0	0	
Land Use Zone II		0	0	0	

Potential Contaminant Source / Land Use Score - Zone II 0 0 0 0

Potential Contaminant / Land Use - ZONE III

Contaminant Source Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or	NO	0	0	0	
Is there irrigated agricultural lands that occupy > 50% of	NO	0	0	0	

Total Potential Contaminant Source / Land Use Score - Zone III 0 0 0 0

Cumulative Potential Contaminant / Land Use Score	11	3	11	9
4. Final Susceptibility Source Score	10	9	10	11
5. Final Well Ranking	Moderate	High*	Moderate	Moderate

1. System Construction

SCORE

Drill Date		
Driller Log Available	NO	
Sanitary Survey (if yes, indicate date of last survey)	YES	2000
Well meets IDWR construction standards	NO	1
Wellhead and surface seal maintained	YES	0
Casing and annular seal extend to low permeability unit	NO	2
Highest production 100 feet below static water level	NO	1
Well located outside the 100 year flood plain	YES	0

Total System Construction Score 4

2. Hydrologic Sensitivity

Soils are poorly to moderately drained	YES	0
Vadose zone composed of gravel, fractured rock or unknown	YES	1
Depth to first water > 300 feet	NO	1
Aquitard present with > 50 feet cumulative thickness	NO	2

Total Hydrologic Score 4

3. Potential Contaminant / Land Use - ZONE 1A

IOC Score	VOC Score	SOC Score	Microbial Score
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Land Use Zone 1A	IRRIGATED PASTURE	1	1	1	1
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	YES	NO	YES	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		1	1	1	1

Potential Contaminant / Land Use - ZONE 1B

Contaminant sources present (Number of Sources)	YES	4	1	4	4
(Score = # Sources X 2) 8 Points Maximum		8	2	8	8
Sources of Class II or III leacheable contaminants or	NO	0	0	0	
4 Points Maximum		0	0	0	
Zone 1B contains or intercepts a Group 1 Area	YES	2	0	2	0
Land use Zone 1B	Less Than 25% Agricultural Land	0	0	0	0

Total Potential Contaminant Source / Land Use Score - Zone 1B 10 2 10 8

Potential Contaminant / Land Use - ZONE II

Contaminant Sources Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or	YES	1	0	0	
Land Use Zone II	Greater Than 50% Irrigated Agricultural Land	2	2	2	

Potential Contaminant Source / Land Use Score - Zone II 3 2 2 0

Potential Contaminant / Land Use - ZONE III

Contaminant Source Present	YES	1	0	1	
Sources of Class II or III leacheable contaminants or	NO	0	0	0	
Is there irrigated agricultural lands that occupy > 50% of	NO	0	0	0	

Total Potential Contaminant Source / Land Use Score - Zone III 1 0 1 0

Cumulative Potential Contaminant / Land Use Score	15	5	14	9
4. Final Susceptibility Source Score	11	9	11	11
5. Final Well Ranking	Moderate	High*	Moderate	Moderate

1. System Construction

SCORE

Drill Date		
Driller Log Available	NO	
Sanitary Survey (if yes, indicate date of last survey)	YES	2000
Well meets IDWR construction standards	NO	1
Wellhead and surface seal maintained	YES	0
Casing and annular seal extend to low permeability unit	NO	2
Highest production 100 feet below static water level	NO	1
Well located outside the 100 year flood plain	YES	0

Total System Construction Score 4

2. Hydrologic Sensitivity

Soils are poorly to moderately drained	YES	0
Vadose zone composed of gravel, fractured rock or unknown	YES	1
Depth to first water > 300 feet	NO	1
Aquitard present with > 50 feet cumulative thickness	NO	2

Total Hydrologic Score 4

3. Potential Contaminant / Land Use - ZONE 1A

IOC Score	VOC Score	SOC Score	Microbial Score
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Land Use Zone 1A	IRRIGATED PASTURE	1	1	1	1
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	YES	NO	YES	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		1	1	1	1

Potential Contaminant / Land Use - ZONE 1B

Contaminant sources present (Number of Sources)	YES	4	1	4	4
(Score = # Sources X 2) 8 Points Maximum		8	2	8	8
Sources of Class II or III leacheable contaminants or	NO	0	0	0	
4 Points Maximum		0	0	0	
Zone 1B contains or intercepts a Group 1 Area	YES	2	0	2	0
Land use Zone 1B	Less Than 25% Agricultural Land	0	0	0	0

Total Potential Contaminant Source / Land Use Score - Zone 1B 10 2 10 8

Potential Contaminant / Land Use - ZONE II

Contaminant Sources Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or	YES	1	0	0	
Land Use Zone II	Greater Than 50% Irrigated Agricultural Land	2	2	2	

Potential Contaminant Source / Land Use Score - Zone II 3 2 2 0

Potential Contaminant / Land Use - ZONE III

Contaminant Source Present	YES	1	0	1	
Sources of Class II or III leacheable contaminants or	NO	0	0	0	
Is there irrigated agricultural lands that occupy > 50% of	NO	0	0	0	

Total Potential Contaminant Source / Land Use Score - Zone III 1 0 1 0

Cumulative Potential Contaminant / Land Use Score	15	5	14	9
4. Final Susceptibility Source Score	11	9	11	11
5. Final Well Ranking	Moderate	High*	Moderate	Moderate

1. System Construction

SCORE

Drill Date		
Driller Log Available	NO	
Sanitary Survey (if yes, indicate date of last survey)	YES	2000
Well meets IDWR construction standards	NO	1
Wellhead and surface seal maintained	YES	0
Casing and annular seal extend to low permeability unit	NO	2
Highest production 100 feet below static water level	NO	1
Well located outside the 100 year flood plain	YES	0

Total System Construction Score 4

2. Hydrologic Sensitivity

Soils are poorly to moderately drained	YES	0
Vadose zone composed of gravel, fractured rock or unknown	YES	1
Depth to first water > 300 feet	NO	1
Aquitard present with > 50 feet cumulative thickness	NO	2

Total Hydrologic Score 4

3. Potential Contaminant / Land Use - ZONE 1A

IOC Score	VOC Score	SOC Score	Microbial Score
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Land Use Zone 1A	IRRIGATED PASTURE	1	1	1	1
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	YES	NO	YES	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		1	1	1	1

Potential Contaminant / Land Use - ZONE 1B

Contaminant sources present (Number of Sources)	YES	4	1	4	4
(Score = # Sources X 2) 8 Points Maximum		8	2	8	8
Sources of Class II or III leacheable contaminants or	NO	0	0	0	
4 Points Maximum		0	0	0	
Zone 1B contains or intercepts a Group 1 Area	YES	2	0	2	0
Land use Zone 1B	Less Than 25% Agricultural Land	0	0	0	0

Total Potential Contaminant Source / Land Use Score - Zone 1B 10 2 10 8

Potential Contaminant / Land Use - ZONE II

Contaminant Sources Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or	YES	1	0	0	
Land Use Zone II	Greater Than 50% Irrigated Agricultural Land	2	2	2	

Potential Contaminant Source / Land Use Score - Zone II 3 2 2 0

Potential Contaminant / Land Use - ZONE III

Contaminant Source Present	YES	1	0	1	
Sources of Class II or III leacheable contaminants or	NO	0	0	0	
Is there irrigated agricultural lands that occupy > 50% of	NO	0	0	0	

Total Potential Contaminant Source / Land Use Score - Zone III 1 0 1 0

Cumulative Potential Contaminant / Land Use Score	15	5	14	9
4. Final Susceptibility Source Score	11	9	11	11
5. Final Well Ranking	Moderate	High*	Moderate	Moderate

1. System Construction

SCORE

Drill Date		
Driller Log Available	NO	
Sanitary Survey (if yes, indicate date of last survey)	YES	2000
Well meets IDWR construction standards	NO	1
Wellhead and surface seal maintained	YES	0
Casing and annular seal extend to low permeability unit	NO	2
Highest production 100 feet below static water level	NO	1
Well located outside the 100 year flood plain	YES	0

Total System Construction Score 4

2. Hydrologic Sensitivity

Soils are poorly to moderately drained	YES	0
Vadose zone composed of gravel, fractured rock or unknown	YES	1
Depth to first water > 300 feet	NO	1
Aquitard present with > 50 feet cumulative thickness	NO	2

Total Hydrologic Score 4

3. Potential Contaminant / Land Use - ZONE 1A

IOC Score	VOC Score	SOC Score	Microbial Score
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Land Use Zone 1A	IRRIGATED PASTURE	1	1	1	1
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	YES	NO	YES	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		1	1	1	1

Potential Contaminant / Land Use - ZONE 1B

Contaminant sources present (Number of Sources)	YES	4	1	4	4
(Score = # Sources X 2) 8 Points Maximum		8	2	8	8
Sources of Class II or III leacheable contaminants or	NO	0	0	0	
4 Points Maximum		0	0	0	
Zone 1B contains or intercepts a Group 1 Area	YES	2	0	2	0
Land use Zone 1B	Less Than 25% Agricultural Land	0	0	0	0

Total Potential Contaminant Source / Land Use Score - Zone 1B 10 2 10 8

Potential Contaminant / Land Use - ZONE II

Contaminant Sources Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or	YES	1	0	0	
Land Use Zone II	Greater Than 50% Irrigated Agricultural Land	2	2	2	

Potential Contaminant Source / Land Use Score - Zone II 3 2 2 0

Potential Contaminant / Land Use - ZONE III

Contaminant Source Present	YES	1	0	1	
Sources of Class II or III leacheable contaminants or	NO	0	0	0	
Is there irrigated agricultural lands that occupy > 50% of	NO	0	0	0	

Total Potential Contaminant Source / Land Use Score - Zone III 1 0 1 0

Cumulative Potential Contaminant / Land Use Score	15	5	14	9
4. Final Susceptibility Source Score	11	9	11	11
5. Final Well Ranking	Moderate	High*	Moderate	Moderate